

# Mineral Industry Surveys

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## MANGANESE IN JUNE 2005

On a gross-weight basis, reported consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 34,200 metric tons (t) in June 2005, which was a 3% increase from the revised figure of 33,200 t in May 2005, according to the U.S. Geological Survey. This figure increases to 36,600 t when estimates for annual respondents are added on the basis of 2004 data. Corresponding industry stocks of ore at the end of the month were 165,000 t, which includes an estimate for annual respondents on the basis of 2004 data. This was a 9% increase over that of the revised amount of 151,000 t in May 2005.

Domestic consumption of manganese ore during the second quarter of 2005 was 110,000 t, which was an 11% increase from 99,400 t (revised) during the first quarter of 2005, and a 7% increase from the revised second quarter of 2004 (103,000 t).

Domestic consumption during the first half of 2005 was 210,000 t, which was 4% higher than the revised consumption for the first half of 2004 (202,000 t).

Foreign trade data for June will appear in a subsequent report. The following comparisons of trade data were made on the basis of manganese content. The data for May 2005 tabulated in this report indicate that the total exports of 1,740 t were 44% less than those of the prior month, owing to a decrease in manganese ore exports. Manganese imports were 63,900 t, which was a decrease of 18% compared with those of April. The decrease in manganese imports was primarily due to a decrease in manganese ore and dioxide imports.

### Ferroalloy Prices, manganese content

	High-carbon ferromanganese <sup>1</sup> (dollars per gross ton)	Medium-carbon ferromanganese <sup>1</sup> (cents per pound)	Silicomanganese <sup>1</sup> (cents per pound)	Manganese metal <sup>2</sup> (cents per pound)
June 2	560.00-590.00	59.00-62.00	31.75-33.00	88.00-92.00
June 9	560.00-590.00	59.00-62.00	31.00-32.00	87.00-90.00
June 16	535.00-550.00	56.00-60.00	31.00-32.00	87.00-90.00
June 23	545.00-550.00	56.00-60.00	31.00-32.00	87.00-89.00
June 30	540.00-560.00	54.00-56.00	29.00-31.00	85.00-87.00

### Ore Prices, dollars per metric ton unit, manganese content<sup>3</sup>

	44% Manganese Ore <sup>2</sup>	48% Manganese Ore <sup>2</sup>
June 2	2.80-3.00	3.50-3.85
June 9	2.80-3.00	3.40-3.80
June 16	2.50-2.80	3.30-3.60
June 23	2.30-2.50	3.20-3.50
June 30	2.30-2.50	3.20-3.50

<sup>1</sup>Source: Platts Metals Week, dealer import price.

<sup>2</sup>Source: Ryan's Notes, North American transaction price.

<sup>3</sup>To determine dollars per metric ton, multiply the manganese content percentage by the price.

TABLE 1  
SELECTED U.S. FOREIGN TRADE IN MANGANESE<sup>1</sup>

(Metric tons, manganese content)<sup>2</sup>

	Imports for consumption			Exports		
	Ore and dioxide	Ferroalloy and metal	Total	Ore	Ferroalloy and metal	Total
2004:						
May	44,200	25,000	69,200	1,990	643	2,630
January-May	116,000	182,000	299,000	17,700	4,040	21,800
2005:						
January	7,650	45,000	52,600	162	955	1,120
February	40,700	29,000	69,700	111	1,170	1,280
March	22,300	42,000	64,300	206	1,160	1,360
April	38,400	39,900	78,300	2,350	778	3,130
May	16,500	47,400	64,000	364	1,380	1,740
Total	126,000	203,000	329,000	3,200	5,440	8,640

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>As reported except as estimated for imports of manganese dioxide and manganese waste and scrap and for exports from gross weights.

Source: U.S. Census Bureau.

TABLE 2  
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN MAY 2005<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>	Year to date		
				Gross weight	Mn content	Customs value <sup>2</sup>
Australia	3,920	2,610	\$1,750,000	16,100	10,800	\$10,200,000
Canada	350	311 <sup>3</sup>	195,000	350	311 <sup>3</sup>	195,000
Kazakhstan	--	--	--	20	13	17,500
Korea, Republic of	--	--	--	216	156	305,000
Mexico	1,600	1,040	1,340,000	6,500	4,330	5,340,000
Norway	10,500	6,670	10,200,000	31,800	20,200	31,500,000
Romania	--	--	--	23,200	16,300	18,200,000
Russia	--	--	--	11,400	7,750	9,250,000
South Africa	11,600	7,720	6,560,000	49,000	32,500	32,700,000
Spain	4,000	2,670	2,770,000	4,000	2,670	2,770,000
Total	32,000	21,000	22,900,000	143,000	94,900	111,000,000
Total, general imports	32,000	21,000	22,900,000	143,000	94,900	111,000,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

<sup>3</sup>All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN MAY 2005<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>	Year to date		
				Gross weight	Mn content	Customs value <sup>2</sup>
<b>Low carbon:</b>						
China	2,280	1,970	\$3,680,000	9,420	8,060	\$15,700,000
Japan	1,800	1,450	2,170,000	1,800	1,450	2,170,000
Korea, Republic of	500	295 <sup>3</sup>	316,000	500	295 <sup>3</sup>	316,000
Mexico	670	538	774,000	1,930	1,550	2,260,000
Netherlands	--	--	--	17	14	29,800
Norway	--	--	--	221	181	369,000
South Africa	140	130	252,000	1,020	944	1,920,000
Spain	--	--	--	36	28	41,800
Total, low carbon	5,390	4,380	7,190,000	14,900	12,500	22,800,000
Total, general imports of low carbon	5,390	4,380	7,190,000	14,900	12,500	22,800,000
<b>Medium carbon, 1%-2% C:</b>						
China	--	--	--	1,850	1,450	2,600,000
Korea	4,500	3,600	4,130,000	4,500	3,600	4,130,000
Mexico	1,240	997	1,420,000	7,140	5,570	7,980,000
Norway	--	--	--	1,810	1,480	2,610,000
South Africa	2,870	2,340	3,790,000	15,300	12,400	19,300,000
Total, m.c., 1%-2% C	8,610	6,930	9,340,000	30,600	24,500	36,600,000
Total, general imports of m.c., 1%-2% C	8,610	6,930	9,340,000	30,600	24,500	36,600,000
<b>High carbon:</b>						
Australia	3,450	2,650	1,480,000	4,460	3,420	2,380,000
Brazil	3,000	2,350	1,700,000	9,210	7,380	7,330,000
Canada	--	--	--	18	13	17,000
China	--	--	--	5,500	4,200	3,850,000
France	1,500	1,170	829,000	4,100	3,200	2,830,000
Hong Kong	--	--	--	300	228	213,000
Mexico	25	19	8,980	788	615	714,000
South Africa	7,990	6,230	4,380,000	49,000	38,100	34,100,000
Total, high carbon	16,000	12,400	8,400,000	73,400	57,200	51,500,000
Total, general imports of high carbon	16,000	12,400	8,400,000	73,400	57,200	51,500,000
Grand total	30,000	23,700	24,900,000	119,000	94,200	111,000,000
Grand total, general imports	30,000	23,700	24,900,000	119,000	94,200	111,000,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

<sup>3</sup>All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 4  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN MAY 2005<sup>1,2</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>3</sup>	Year to date		
				Gross weight	Mn content	Customs value <sup>3</sup>
<b>More than 20%, but less than 47% manganese:</b>						
China	--	--	--	30	12	\$11,600
Gabon	59 <sup>4</sup>	3,190 <sup>4</sup>	\$476,000	59 <sup>4</sup>	3,190 <sup>4</sup>	476,000
Mexico	--	--	--	5,870	3,240	675,000
Namibia	--	--	--	26,000	10,400	1,950,000
Total	59	3,190	476,000	32,000	16,800	3,110,000
<b>47% or more manganese:</b>						
Australia	--	--	--	22,500	11,800	2,810,000
Belgium	22	14	16,800	60	37	43,600
Brazil	--	--	--	8,630	4,940	1,160,000
China	--	--	--	8,540	4,270	714,000
France	--	--	--	60	56 <sup>4</sup>	6,670
Gabon	24,600	13,100	1,910,000	133,000	68,100	10,200,000
Ghana	--	--	--	72	50	4,320
India	76	37	4,390	82	39	8,620
South Africa	--	--	--	27,300	13,300	2,530,000
Total	24,700	13,200	1,930,000	200,000	103,000	17,400,000
Grand total	24,800	16,400	2,400,000	232,000	119,000	20,600,000

-- Zero.

<sup>1</sup>Quantities for general imports and imports for consumption are identical.

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

<sup>4</sup>All or part of these data have been referred to the U.S. Census Bureau for verification. Reported content is likely that of MnO<sub>2</sub> rather than Mn.

Source: U.S. Census Bureau.

TABLE 5  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE IN MAY 2005<sup>1</sup>

(Metric tons, gross weight)

Source	Manganese dioxide			
	Quantity	Customs value <sup>2</sup>	Year to date	
Quantity			Customs value <sup>2</sup>	
Australia	--	--	4,910	\$6,440,000
Belgium	94	\$227,000	242	542,000
Brazil	149	158,000	371	414,000
China	--	--	3,140	3,200,000
Germany	21	82,900	55	178,000
Japan	35	53,800	1,500	2,010,000
Total	299	521,000	10,200	12,800,000
Total, general imports	299	521,000	10,200	12,800,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN MAY 2005<sup>1</sup>

(Metric tons)

Source	Gross weight	Customs value <sup>2</sup>	Year to date	
			Gross weight	Customs value <sup>2</sup>
<b>Unwrought flake:</b>				
China	1,220	\$1,830,000	5,630	\$8,840,000
Germany	--	--	7	28,200
South Africa	450	830,000	2,640	4,510,000
<b>Total</b>	<b>1,670</b>	<b>2,660,000</b>	<b>8,270</b>	<b>13,400,000</b>
<b>Unwrought powder:</b>				
China	73	136,000	110	206,000
South Africa	295	590,000	1,690	3,250,000
<b>Total</b>	<b>368</b>	<b>726,000</b>	<b>1,800</b>	<b>3,450,000</b>
<b>Unwrought, other:</b>				
China	--	--	100	204,000
Germany	334	671,000	1,350	2,650,000
Spain	226	476,000	1,430	3,070,000
South Africa	--	--	677	1,270,000
<b>Total</b>	<b>561</b>	<b>1,150,000</b>	<b>3,550</b>	<b>7,200,000</b>
<b>Other manganese, wrought:</b>				
Austria	--	--	1	53,300
China	77	120,000	240	396,000
France	(3)	5,090	17	179,000
Germany	--	--	4	42,300
Spain	--	--	37	77,600
United Kingdom	--	--	2	7,070
<b>Total</b>	<b>77</b>	<b>126,000</b>	<b>301</b>	<b>755,000</b>
<b>Grand total</b>	<b>2,670</b>	<b>4,660,000</b>	<b>13,900</b>	<b>24,800,000</b>

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the material into the United States.

<sup>3</sup>Less than 1/2 unit.

Note: There were no imports for consumption of metallic manganese waste and scrap for the month of May. The year-to-date total is 294 tons.

Source: U.S. Census Bureau.

TABLE 7  
U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE,  
SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN MAY 2005<sup>1</sup>

(Metric tons, gross weight)

	Manganese ore		Ferromanganese, 2% or less C		Silicomanganese		Manganese metal <sup>2</sup>	
	April	Year to date	April	Year to date	April	Year to date	April	Year to date
Australia	--	--	--	--	--	--	3	5
Belgium	--	--	--	--	--	--	209	323
Brazil	--	--	--	--	--	5	(3)	18
Canada	417	1,470	1,040	3,990	4	37	1	188
Chile	4	4	--	1	--	--	--	--
China	240	4,550	--	--	--	--	--	--
Colombia	--	6	--	--	--	--	--	--
Denmark	--	17	--	--	--	--	--	--
France	--	--	--	--	32	92	--	--
Germany	17	53	--	--	--	--	--	136
Hong Kong	--	--	--	--	--	--	(3)	2
Indonesia	--	16	--	--	--	11	--	(3)
Italy	--	--	--	--	--	--	2	4
Japan	--	--	--	--	--	--	54	202
Korea, Republic of	--	--	--	--	--	--	16	20
Mexico	11	22	108	420	24	256	17	151
Netherlands	--	--	--	2	--	20	--	--
New Zealand	--	1	--	--	--	--	--	--
Poland	20	193	--	--	--	--	--	--
Spain	--	--	--	--	8	8	--	--
Sweden	19	57	--	--	--	--	32	63
Taiwan	--	--	--	--	--	--	--	(3)
Trinidad and Tobago	--	--	--	--	--	--	1	1
Venezuela	--	--	--	--	--	--	3	3
Total	728	6,390	1,150	4,420	68	429	338	1,120

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes manganese-aluminum, some other alloys, and waste and scrap.

<sup>3</sup>Less than 1/2 unit.

Note: Exports of ferromanganese with more than 2% carbon totaled 113 tons, all of which went to Canada, to give a year-to-date total of 699 tons.

Source: U.S. Census Bureau.

TABLE 8  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN MAY 2005, BY CLASS<sup>1</sup>

Class	Gross weight (metric tons)	Value <sup>2</sup> (thousands)	Principal sources and destinations: gross weight (metric tons); value <sup>2</sup> (thousands)	Year to date		Principal sources and destinations: gross weight (metric tons); value <sup>2</sup> (thousands)
				Gross weight (metric tons)	Value <sup>2</sup> (thousands)	
<b>Imports for consumption:</b>						
Manganese oxides other than dioxide	245	\$148	Mexico 169; \$69	2,380	\$1,190	Mexico 1,010; \$399
Manganites, manganates, and other permanganates	--	--	--	38	123	Germany 38; \$123
Potassium permanganate	104	211	India 54; \$106	441	900	Czech Republic 253; \$511
Sodium permanganate <sup>3</sup>	50	195	Germany 50; \$195	65	252	Germany 65; \$252
Sulfates, basket category, including manganese sulfate	5,470	2,880	Mexico 3,070; \$1,510	20,800	12,000	Mexico 11,230; \$5,740
<b>Exports:</b>						
Manganese dioxide	578	431	Canada 302; \$112	2,230	1,740	Canada 1,410; \$633
Manganese oxides other than dioxide	1,460	654	Canada 1,200; \$399	4,610	3,010	Canada 3,230; \$1,200
Manganites, manganates, and other permanganates	9	19	Canada 9; \$19	34	93	Canada 20; \$42
Potassium permanganate	318	1,370	Spain 175; \$380	1,760	3,530	Spain 799; \$1,380
Sodium permanganate <sup>3</sup>	103	245	Japan 45; \$112	196	548	Japan 124; \$359
Sulfates, basket category, including manganese sulfate	1,920	1,180	Canada 1,710; \$695	9,540	6,440	Canada 7,990; \$3,470

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>For imports, Customs value; for exports, free alongside ship value.

<sup>3</sup>In December 2004, the U.S. Harmonized Tariff Schedule was changed for manganites, manganates and permanganates to implement the United States-Australia Free Trade Agreement. Starting in 2005, sodium permanganate is tracked separately from the "manganites, manganates, and other permanganates" trade category.

Source: U.S. Census Bureau.